CLAIMS

1. A method for producing a single crystal by Czochralski method with pulling a seed crystal from a raw material melt, wherein when a pulling rate of pulling a single crystal is defined as V (mm/min), a temperature gradient at a solid-liquid interface is defined as G (K/mm) and a highest temperature at an interface between a crucible and a raw material melt is defined as Tmax (°C), at least, a range of a value of V/G ($mm^2/K \cdot min$) including a desired defect region and/or a desired defect-free region is determined according to the Tmax (°C), and the single crystal is pulled with controlling a value of V/G ($mm^2/K \cdot min$) within the determined range.

2. The method for producing a single crystal according to Claim 1, wherein the single crystal is pulled with controlling the value of V/G ($mm^2/K \cdot min$) in a range from -0.000724 x Tmax + 1.31 to less than -0.000724 x Tmax + 1.38.

3. The method for producing a single crystal according to Claim 1, wherein the single crystal is pulled with controlling the value of V/G ($mm^2/K \cdot min$) in a range of -0.000724 x Tmax + 1.38 or more.

4. The method for producing a single crystal according to Claim 1, wherein the single crystal is pulled with controlling the value of V/G ($mm^2/K \cdot min$) in a range from -0.000724 x Tmax + 1.31 to -0.000724 x Tmax + 1.35.

5. The method for producing a single crystal according to any one of Claims 1 - 4, wherein the single crystal is pulled with the Tmax (°C) being in a range of 1560 °C or less.

6. The method for producing a single crystal according to any one of Claims 1 - 5, wherein, at least, the Tmax (°C) is changed by providing a heat insulating material between the crucible containing the raw material melt and a heater provided so as to surround the crucible, or by providing a heat insulating material below the crucible.

7. The method of producing a single crystal according to any one of Claims 1 - 6, wherein a silicon single crystal is pulled as the single crystal.

8. The method of producing a single crystal according to any one of Claims 1 - 7, wherein a single crystal with a diameter of 200mm or more is pulled

as the single crystal.

9. A single crystal produced by any one of methods according to Claims 1 - 8.